



*Training Course:  
Certified Energy Manager (CEM Exam Prep)*

*22 - 26 December 2024  
Manama (Bahrain)  
Fraser Suites*

## Training Course: Certified Energy Manager (CEM Exam Prep)

Training Course code: EW235521 From: 22 - 26 December 2024 Venue: Manama (Bahrain) - Fraser Suites Training  
Course Fees: 5100 € Euro

### Introduction

The Certified Energy Manager CEM program is designed to provide participants with the knowledge and skills necessary to optimize energy efficiency in commercial, industrial, and institutional facilities. This program covers various energy management principles, auditing techniques, and energy performance metrics, preparing participants to successfully pass the CEM exam and apply these skills in their professional environment.

### Target Audience

- Energy managers
- Facility managers
- Engineers
- Energy consultants
- Sustainability professionals
- Project managers involved in energy projects

### Objectives

- Understand the principles of energy management and auditing
- Learn how to evaluate energy performance in buildings and facilities
- Gain insights into energy systems, HVAC, lighting, and renewable energy sources
- Develop energy-saving strategies and identify opportunities for energy efficiency
- Prepare for the Certified Energy Manager CEM exam

### Training Program Outline

#### Day 1: Fundamentals of Energy Management and Auditing

##### Session 1: Introduction to Energy Management

- Overview of energy management
- Role of an energy manager
- Importance of energy efficiency in today's business environment
- Regulatory frameworks and policies affecting energy management

# *S e s s i o n 2 : E n e r g y A u d i t i*

- Types of energy audits walk-through, general, investment-grade
- Steps in conducting an energy audit
- Key energy consumption metrics and performance indicators
- Use of benchmarking for energy management

## Day 2: Energy Systems and Technologies

### Session 1: Electrical Systems

- Overview of electrical systems in buildings
- Energy consumption patterns in electrical equipment
- Power factor, demand control, and load management
- Energy-saving techniques for electrical systems

### Session 2: HVAC Systems and Energy Efficiency

- Fundamentals of heating, ventilation, and air conditioning systems
- Energy performance in HVAC systems
- Key strategies to improve HVAC energy efficiency
- Case studies on HVAC energy-saving initiatives

## Day 3: Energy Efficiency in Lighting and Controls

### Session 1: Lighting Systems

- Introduction to energy-efficient lighting technologies
- Comparison of lighting systems: LED, CFL, and traditional lighting
- Strategies for improving lighting efficiency in commercial and industrial buildings

### Session 2: Building Automation and Control Systems

- Building energy management systems BEMS
- Use of automation for energy monitoring and control
- Smart controls and sensors for optimizing energy use

## Day 4: Renewable Energy and Sustainability

### Session 1: Renewable Energy Technologies

- Overview of renewable energy sources solar, wind, biomass
- Integrating renewable energy into facility energy systems
- Cost-benefit analysis of renewable energy projects
- Case studies on renewable energy implementation

## *S e s s i o n 2 : S u s t a i n a b i l i t y a n d E n e r*

- Sustainable energy management practices
- Energy management's role in environmental sustainability
- Corporate social responsibility CSR and energy efficiency

### Day 5: Energy Performance and Certification Preparation

#### Session 1: Energy Performance and Monitoring

- Energy performance metrics and KPIs
- Using software tools for energy management
- Energy consumption analysis and reporting
- Continuous improvement in energy management

#### Session 2: CEM Exam Preparation

- Review of key topics for the CEM exam
- Practice questions and problem-solving exercises
- Tips and strategies for the CEM exam
- Final Q&A and wrap-up

## Registration form on the Training Course: Certified Energy Manager (CEM Exam Prep)

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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### Payment Method

- Please find enclosed a cheque made payable to Global Horizon
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